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RELEASE OF THE CENTRAL TENDON DRAMATICALLY IMPROVES THE CONTINENCE RATE FOR TENSION READJUSTABLE URETHRAL SLING PROCEDURE (REMEEX SYSTEM®) FOR MALE STRESS URINARY INCONTINENCE

Hypothesis / aims of study
Stress urinary incontinence (SUI) can be a debilitating problem after surgery of the prostate. Treatment options include sphincteric injection, artificial urinary sphincter implantation and male sling operation. Previously we reported disappointing results for the male sling using the Remeex System® with mesh placement in the posterior uretha. The improved rate (using 1 pad or less per day) for patients with at least 1 year follow up was only 36%. Success (not using any pad) was observed in only 1 patient. Complications including persistent pain, infection, erosion and mechanical failure occurred in 43% (6 of 14). Recently, a new surgical approach for the Remeex System® was introduced where the perineal central tendon is released and the mesh placed more proximally toward the bladder neck. We report our initial experience using the Remeex System® in male SUI patients with this new surgical approach.

Study design, materials and methods
Between September 2010 and July 2011, 14 male patients age 38 to 77 years (mean age 63.2±9.8) with SUI were operated with a readjustable suburethral sling Remeex System® using the new surgical approach. The new approach involved releasing the central tendon and the urethra proximal to the central tendon up to the bladder neck. The mesh was placed in the proximal urethra and connected to a tension adjusting varitensor located in the suprapubic area. The interval between TURP or radical prostatectomy (RP) or spinal cord injury (SCI) and the sling operation was 36.8±16.4 months (range 18-84months). Success was defined as requiring no pad with the patient being satisfied with the incontinence state.

Results
Twelve patients had previously underwent RP, 1 TURP and 1 spinal cord injury. All patients used more than 1 pad/day before the operation. The patients were evaluated between 8 to 18 months after surgery. Three patients including 1 patient who received adjuvant radiation therapy were completely dry. 4 patients did not use any pad despite having some leak. 4 patients used less than 1 pad/day. Two patients used 1 pad/day. One patient who previously received radiotherapy and hormonal therapy used more than 1 pad/day and was not satisfied with his condition. Improvement (using 1 pad or less per day) was observed in 92.8% (13/14) of patients and success (not using any pad) was seen in 50% (7/14). All patients required at least 2 readjustment of the sling tension (range 2-4). The first adjustment was performed 6 weeks after the surgery and whenever the aggravated incontinence stabilized thereafter. Transient perineal pain was on the only complication observed in these patients.

Interpretation of results
The new surgical method for the male sling using the Remeex System® demonstrated a dramatic increase in both the improvement and success rate for incontinence. This was possible through the release of the perineal central tendon and proximal urethra since those were the only changes added to the previous surgery. It is thought that the release of the perineal central tendon and proximal urethra results in a more stable and effective traction angle for the mesh that requires less traction, and coaptation of the urethra starting just distal to the bladder neck provides a more natural closure. However, postoperative readjustment of the varitensor was still needed in all patients.

Concluding message
The male sling operation using the Remeex System® showed a marked improvement in outcome compared to previous results when the central tendon was released and seems to be a viable option in the management of male urinary incontinence.

Disclosures
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